



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

647.1510
Job Sheet 186703



Part No: 647.1510

Job Qty: 2 ea

Part Name: Upper Deflector



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 11/20/18

Job Tracking No:

Due Date: 12/7/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG REV D IPP REV: A NEW ISSUE JFS 14/08/19 VERIFIED BY: JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	2 Ea		12/7/18	0.00	0.00	Start Up Machining-1		SBL 19/01/24
100	Bandsaw	2 pcs		12/7/18	0.00	0.10	Bandsaw1		SBL 19/01/24
110	CNC Vertical Machining	2 pcs		12/7/18	0.00	2.30	HAAS1-1		SBL 19/01/24
120	QC	2 pcs		12/7/18	0.00	0.00	QC2 Machining-1		
130	QC	2 pcs		12/7/18	0.00	0.00	QC8 Machining-1		OK 19/01/24
140	Outsource	2 pcs		12/7/18			ATG001-VC		CZ 19-01-24
150	Packaging	2 pcs		12/7/18	0.00	0.00	Packaging2		JAN 30 2019
155	QC	2 pcs		12/7/18	0.00	0.00	QC5		36 DAS
180	Packaging	2 pcs		12/7/18	0.00	0.00	Packaging3-1		9-89
190	QC21-SA	2 Ea		12/7/18	0.00	0.00	QC21		6 FEB 06 2019

Part Op 100 - Cut Blank at 22.000" *** ONE BLANK MAKES TWO PARTS***

Descriptions: 110 - 1-Machine per folio FB337 DWG REV: D FOLIO REV: AA 2- deburr and break all sharp edges

120 - QC2- Inspect parts off machine FAI/FAIB

130 - QC8- Inspect parts - second check

140 - Issue P/O to ATG 2012393 Hard Black Anodize and Prime as per Dwg 647.1500 Rev. D

150 - Receive & Inspect for Damage & Mat'l Certs

155 - QC5- Inspect part completeness to step on W/O

180 - Identify as per dwg & Stock Location: _____ ***IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV***

190 - QC21- Final Inspection - Work Order Release

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M7075T6S0.375X6.000	7075-T6S Sheet .375" Thick Plate X 6" Wide	1.8340 ft (.917 ea)	90-Start up Operation	<u>5124675</u>

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	M7075T6S0.375X6.000	2	16	0

Part Specifications

Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	Screen	0.130inches $\pm$ 0.010	0.140 0.120		

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																			
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Description Work Order Deviation			Disposition																																				
Dart Aerospace Ltd. 1270 Aberdeen Street Hawthornbury, ON K6A 1K7 CANADA TEL: 1 813 632-5200 Email: sales@dartaero.com www.dartaerospace.com Date: 01/24/19 DART AEROSPACE Container No: S147494 Part: 647.1510 Job No: 186703 Serial No/Batch: S147494 Revision: Inspector: Exp Date: Instructions:			Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																				
Root Cause <table style="width:100%; border: none;"> <tr><td style="border: none;">Environment ☐</td><td style="border: none;">☐ No Re-verification</td></tr> <tr><td style="border: none;">Design ☐</td><td style="border: none;">☐ Operator</td></tr> <tr><td style="border: none;">Doc/Data ☐</td><td style="border: none;">☐ Offset/Setup</td></tr> <tr><td style="border: none;">Equip/Tooling ☐</td><td style="border: none;">☐ Supplier</td></tr> <tr><td style="border: none;">Handling/Pre ☐</td><td style="border: none;">☐ Training</td></tr> <tr><td style="border: none;">Material ☐</td><td style="border: none;">☐ Use for Testing</td></tr> <tr><td style="border: none;">Internal Transport ☐</td><td style="border: none;">☐ Poor Information</td></tr> <tr><td style="border: none;">Tribal Knowledge ☐</td><td style="border: none;">☐ Rushing</td></tr> <tr><td style="border: none;">LOA ☐</td><td style="border: none;">☐ Product Improvement</td></tr> <tr><td style="border: none;">Substation ☐</td><td style="border: none;">☐ Process Improvement</td></tr> <tr><td style="border: none;">Past Expiry Date ☐</td><td style="border: none;">☐ Manufacturing Process</td></tr> <tr><td style="border: none;">Misidentified ☐</td><td style="border: none;">☐ Past Due</td></tr> </table>			Environment ☐	☐ No Re-verification	Design ☐	☐ Operator	Doc/Data ☐	☐ Offset/Setup	Equip/Tooling ☐	☐ Supplier	Handling/Pre ☐	☐ Training	Material ☐	☐ Use for Testing	Internal Transport ☐	☐ Poor Information	Tribal Knowledge ☐	☐ Rushing	LOA ☐	☐ Product Improvement	Substation ☐	☐ Process Improvement	Past Expiry Date ☐	☐ Manufacturing Process	Misidentified ☐	☐ Past Due	<table style="width:100%; border: none;"> <tr><td style="border: none;">☐ Positioned Wrong</td></tr> <tr><td style="border: none;">☐ Outside Dimensions</td></tr> <tr><td style="border: none;">☐ Over/Under tolerance</td></tr> <tr><td style="border: none;">☐ Part Incorrect</td></tr> <tr><td style="border: none;">☐ Part Lost/Missing</td></tr> <tr><td style="border: none;">☐ Part Moved</td></tr> <tr><td style="border: none;">☐ Drawing</td></tr> <tr><td style="border: none;">☐ Finish</td></tr> <tr><td style="border: none;">☐ Misread</td></tr> <tr><td style="border: none;">☐ Turning Sequence</td></tr> </table>			☐ Positioned Wrong	☐ Outside Dimensions	☐ Over/Under tolerance	☐ Part Incorrect	☐ Part Lost/Missing	☐ Part Moved	☐ Drawing	☐ Finish	☐ Misread	☐ Turning Sequence
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Wave/Twist in Tube ☐ Instructions Incomplete/Unclear ☐ Fit/Function ☐ Marks/Chatter ☐ Drill Holes ☐ Misaligned/off center ☐		OTHER : ☐																																					

2	Screen	45.000degrees $\pm$ 0.500	45.500 44.500	Angle
3	Screen	0.177inches $\begin{matrix} + 0.005 \\ - 0.001 \end{matrix}$	0.182 0.176	Diameter
4	Screen	0.300inches $\pm$ 0.010	0.310 0.290	
5	Screen	23.000degrees $\pm$ 0.500	23.500 22.500	Angle
6	Screen	2.110inches $\pm$ 0.005	2.115 2.105	
7	Screen	4.220inches $\pm$ 0.005	4.225 4.215	
8	Screen	5.026inches $\pm$ 0.005	5.031 5.021	
9	Screen	0.310inches $\pm$ 0.005	0.315 0.305	
10	Screen	67.100degrees $\pm$ 0.500	67.600 66.600	Angle
11	Screen	0.188inches $\begin{matrix} + 0.005 \\ - 0.001 \end{matrix}$	0.193 0.187	Diameter
12	Screen	12.828inches $\pm$ 0.005	12.833 12.823	
13	Screen	0.700inches $\begin{matrix} + 0.005 \\ - 0.010 \end{matrix}$	0.705 0.690	
14	Screen	0.340inches $\begin{matrix} + 0.010 \\ - 0.005 \end{matrix}$	0.350 0.335	
15	Screen	0.040inches $\begin{matrix} + 0.000 \\ - 0.010 \end{matrix}$	0.040 0.030	
16	Screen	45.000degrees $\begin{matrix} + 0.010 \\ - 0.500 \end{matrix}$	45.010 44.500	Angle
17	Screen	0.380inches $\pm$ 0.010	0.390 0.370	
18	Screen	13.810inches $\pm$ 0.010	13.820 13.800	

Plex 11/20/18 12:07 PM Dart.lajeunesse.marie

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER :					



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO042393



Supplier: ATG001-VC
A.T.G. Industries Inc
731 INDUSTRIELLE ROAD
ROCKLAND
ON
K4K 1T2 Canada
Phone: 613-446-4544
Fax: 613-446-4556

Attention: Lalande, Marc-Andre

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: PO042393
PO Date: 1/24/19
Due Date: 1/28/19
**Purchase Order
Revision:**
Revision Date:
Ship-To Contact: Tsimiklis, Chrisoula
Phone:
Via: Ground
Pynt Terms: Net 30
Freight Terms:
Special Comments:

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	188936	D5069-1	Hardpoint Adapter : Various STC's ISSUE P/O: _____ TO ATG ANODIZE BLACK PER MIL-A-8625F TYPE I OR IB OR IC OR II OR IIB CLASS 2	Firmed	-	1/28/19	4 pcs	0 pcs	4 pcs	\$8.75/pcs	\$35.00
Line Item Note ** urgent **											
2	188543	647.1510	Upper Deflector Issue P/O to ATG : Hard Black Anodize and Prime as per Dwg 647.1500 Rev. D	Firmed	-	1/28/19	10 pcs	0 pcs	10 pcs	\$17.25/pcs	\$172.50
Line Item Note ** urgent **											
	186703			Firmed	-	1/28/19	2 pcs	0 pcs	2 pcs	\$17.25/pcs	\$34.50
Sub Total:							12	0	12		\$207.00
3	188309	646.3718	Custom Washer (Outsource process- Anodize per QSI017 4.1.10.1) Issue P/O _____ATG, black anodize and prime as per dwg 646.3718 Rev. A	Firmed	-	1/28/19	24 pcs	0 pcs	24 pcs	\$5.70/pcs	\$136.80
Grand Total:											\$378.80



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PURCHASE ORDER PO042393



Order Notes

Procurement Quality Clauses

A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 1/25/19 11:41 AM dart.tsimiklis.chrisoula



A.T.G. Industries Inc.
731 Industrielle Street
Rockland, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 917145

Date: 30-Jan-19

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

Chrisoula Tsimiklis
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
		ATG Delivery	
Quantity	Description		
	Please reference this document's Pack List number on all correspondences regarding this shipment. If you have any questions, please contact us.		
✓ 12 ea	Part: 647.1510 ✓ Upper Deflector Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 4.5mils) Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied), .0001-.0002" (.1 - 2 mils) per drawing. Job: 24539 PO: PO042393 ✓ Line: 2	Rev: D	38 159
✓ 24 ea	Part: 646.3718 ✓ Custom Washer Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 4.5mils) Prime per MIL-PRF-23377, Type I, Class N (Customer Supplied), .0006-.0009" (.6 - .9 mils) per drawing. Job: 24540 PO: PO042393 ✓ Line: 3	Rev: A	5147812
CERTIFICATE OF CONFORMANCE A.T.G Industries Inc. certifies that all items in this shipment conform to the requirements. Date: 30/1/19 Certified Signature: _____ Receiver Signature: _____ A.T.G Industries Inc. is AS9100 Registered and Nadcap Chemical Processing Accredited. Note: This Packing Slip may contain parts that have been PLATED. Items that are plated may be subject to natural tarnishing and it is suggested that they be inspected within 24 hours of receipt. Made in Canada.			